

40000-0047

10/726,850

RECEIVED  
CENTRAL FAX CENTER

MAY 08 2007

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A wireless stylus comprising:  
a housing;  
a central processing unit (CPU) disposed in said housing;  
a wireless communication receiver disposed in said housing and communicatively coupled to said CPU, wherein said wireless communication receiver is configured to receive haptic commands from a host computing device; [[and]]

an actuator communicatively coupled to said central processing unit, wherein said actuator is configured to produce a haptic sensation[[:]], said haptic sensation being controlled by said CPU in response to said haptic commands; and

a light emitting device communicatively coupled to said CPU, wherein said light is selectively illuminated in response to said haptic commands.

2. (original) The wireless stylus of claim 1, wherein said housing comprises a cylindrical shape.

3. (original) The wireless stylus of claim 1, wherein said haptic commands from a host computing device are associated with an input signal received by a host application running on said host computing device.

4. (original) The wireless stylus of claim 1, wherein said CPU comprises one of a processor, a microprocessor, or an application-specific integrated circuit (ASIC).

40000-0047

10/726,850

5. (original) The wireless stylus of claim 1, wherein said wireless communication receiver comprises a radio frequency (RF) receiver.

6. (original) The wireless stylus of claim 1, wherein said wireless communication receiver comprises an infrared (I/R) receiver.

7. (original) The wireless stylus of claim 1, further comprising a power supply disposed in said housing;

wherein said power supply is configured to selectively provide power to said CPU and said actuator.

8. (original) The wireless stylus of claim 7, wherein said power supply comprises a battery.

9. (original) The wireless stylus of claim 8, wherein said battery comprises a rechargeable battery.

10. (original) The wireless stylus of claim 9, further comprising an external power connector disposed on a surface of said housing, wherein said external power connector is configured to provide power to said rechargeable battery when said external power connector is coupled to an outside power source.

40000-0047

10/726,850

11. (original) The wireless stylus of claim 1, wherein said actuator comprises an electromechanical device.

12. (original) The wireless stylus of claim 11, wherein said actuator further comprises one of a linear actuator, a repulsive magnet pair, or a rotary actuator.

13. (original) The wireless stylus of claim 1, further comprising:  
a data storage device communicatively coupled to said CPU; and  
a clock device communicatively coupled to said CPU.

14. (original) The wireless stylus of claim 13, wherein said data storage device comprises a data lookup table configured to match one of said haptic commands with a corresponding actuator control signal.

15. (cancelled)

16. (currently amended) The wireless stylus of ~~claim 15~~ claim 1, wherein said light emitting device comprises a light emitting diode (LED).

17. (currently amended) A wireless stylus comprising:  
a housing;  
a central processing unit (CPU) disposed in said housing;

40000-0047

10/726,850

a wireless communication receiver disposed in said housing and communicatively coupled to said CPU, wherein said wireless communication receiver is configured to receive haptic commands from a host computing device;

an actuator communicatively coupled to said central processing unit, wherein said actuator is configured to produce a haptic sensation, said haptic sensation being controlled by said CPU in response to said haptic commands; and

~~The wireless stylus of claim 1, further comprising a speaker disposed on said housing[;], wherein said speaker is communicatively coupled to said CPU driven by said CPU to produce sounds in response to said haptic commands, and wherein said CPU is configured to command said speaker to emit a sound.~~

18. (original) The wireless stylus of claim 17, wherein said sound is associated with said haptic sensation.

19. (original) The wireless stylus of claim 1, further comprising a replaceable ink cartridge disposed in said housing;

wherein said replaceable ink cartridge may be selectively positioned to mark an ink receiving medium.

20. (currently amended) A system for providing force feedback to a wireless input device comprising:

a host computing device comprising a display having a cursor;

a data interface configured to be communicatively coupled to ~~[[a]]~~ said host computing device; and

40000-0047

10/726,850

a data input device configured to input data to said data interface so as to control said cursor on said display;

wherein said data input device includes a housing, a central processing unit (CPU) disposed in said housing, a wireless receiver communicatively coupled to said CPU, and an actuator communicatively coupled to said CPU, wherein said actuator is configured to produce a haptic sensation in response to haptic commands received wirelessly from said host computing device; and

wherein said haptic commands are generated by said host computing system and transmitted wirelessly to said data input device in response to said cursor on said display of said host computing device encountering another item displayed on said display of said host computing device.

21. (original) The system of claim 20, wherein said host computing device and said data interface comprise a single functional unit.

22. (original) The system of claim 20, wherein said host computing device comprises one of a personal computer or a workstation.

23. (original) The system of claim 22, wherein said data interface comprises a tablet.

24. (original) The system of claim 23, wherein said data input device comprises a stylus configured to interact with said host feedback application by inputting data into said host computing device via said tablet.

40000-0047

10/726,850

25. (original) The system of claim 20, wherein said housing comprises a cylindrical shape.

26. (cancelled)

27. (original) The system of claim 20, wherein said wireless transmitter comprises a radio frequency (RF) transmitter and said wireless receiver comprises an RF receiver.

28. (original) The system of claim 20, wherein said wireless transmitter comprises an infrared (I/R) transmitter and said wireless receiver comprises an I/R receiver.

29. (original) The system of claim 20, further comprising a power supply disposed in said housing;

wherein said power supply is configured to selectively provide power to said CPU and said actuator.

30. (original) The system of claim 29, further comprising an external power connector disposed on a surface of said housing, wherein said external power connector is configured to facilitate a recharging of said power supply.

31. (original) The system of claim 20, wherein said actuator comprises an electromechanical device.

40000-0047

10/726,850

32. (currently amended) The system of ~~claim 24~~ claim 31, wherein said actuator further comprises one of a linear actuator, a repulsive magnet pair, or a rotary actuator.

33. (original) The system of claim 20, further comprising a light emitting diode (LED) communicatively coupled to said CPU, wherein said LED is configured to illuminate in response to said haptic commands.

34. (original) The system of claim 20, further comprising a speaker disposed on said housing;

wherein said speaker is communicatively coupled to said CPU, and wherein said CPU is configured to selectively cause said speaker to emit a sound

35. (original) The system of claim 34, wherein said sound is associated with said haptic sensation.

36. (original) The system of claim 20, further comprising a replaceable ink cartridge disposed in said housing;

wherein said replaceable ink cartridge may be selectively positioned to mark an ink receiving medium.

37. (currently amended) A wireless stylus comprising:  
a means for housing components;

40000-0047

10/726,850

a means for processing data, said processing means being disposed in said housing means and configured to process haptic commands;

a means for wireless communication disposed in said housing means for receiving said haptic commands and communicatively coupled to said processing means; [[and]]

a means for actuating communicatively coupled to said processing means, wherein said actuating means is configured to produce a haptic sensation under control of said processing means in response to said haptic commands; and

~~said haptic sensation being controlled by said processing means~~  
an ink dispensing means for dispensing ink when said stylus is used as a writing instrument with an ink receiving medium.

38. (original) The wireless stylus of claim 37, wherein said means for wireless communication is configured to receive haptic commands from a host computing device; and

wherein said means for processing is configured to control said means for actuating in response to said haptic commands.

39. (original) The wireless stylus of claim 38, further comprising a means for supplying power to said stylus, wherein said means for supplying power is disposed in said means for housing.

40. (original) The wireless stylus of claim 38, wherein said haptic commands from a host computing device are associated with an input signal received by a host application running on said host computing device.



40000-0047

10/726,850

41. (currently amended) A method for producing force feedback in an input device comprising:

receiving ~~stylus~~ location data in a host computer from a user input device;

controlling a cursor on a display of said host computer with said location data from said user input device;

if said cursor controlled in response to said location data intersects another item displayed on said display, generating a haptic command corresponding to said item intersected by said cursor;

transmitting said haptic command corresponding to said item intersected to said user input device; and

with an actuator of said user input device, generating haptic sensations in response to said haptic command corresponding to said item intersected by said cursor

~~associating said stylus location data with an event in a host computer application; and~~

~~if said stylus location data corresponds to an event in said host computing application, transmitting a haptic command signal to said stylus using a wireless communication device.~~

42. (currently amended) The method of claim 41, wherein said transmitting is wireless performed with a wireless communication device ~~comprises one of a radio frequency (RF) transmitter or an infrared (I/R) transmitter.~~

43. (currently amended) The method of claim 41, wherein said user input device comprises a stylus, said method further comprising generating said location data by

40000-0047

10/726,850

interfacing said stylus with a touch-sensitive interface of said host computer further comprising:

- ~~— receiving said haptic command signal in said stylus;~~
- ~~— transmitting said haptic command signal to a central processing unit (CPU) in said stylus; and~~
- ~~— operating an actuator in response to said haptic command signal.~~

44. (currently amended) The method of claim 43, wherein said stylus receives said haptic command wirelessly ~~through one of an RF receiver or an I/R receiver.~~

45-55. (cancelled)

56. (new) The wireless stylus of claim 17, further comprising a replaceable ink cartridge disposed in said housing;

wherein said replaceable ink cartridge may be selectively positioned to mark an ink receiving medium.

57. (new) The wireless stylus of claim 17, further comprising a light emitting device communicatively coupled to said CPU, wherein said light is configured to be illuminated in response to said haptic commands.

58. (new) The wireless stylus of claim 17, wherein said haptic commands are generated by a host computer and transmitted to said stylus in response to a cursor on a

40000-0047

10/726,850

display of said host computer, which is controlled with said stylus, encountering an item displayed on said display of said host computer.

59. (new) The method of claim 41, further comprising illuminating light on said user input device in response to said haptic command.

60. (new) The method of claim 41, further comprising emitting sounds with a speaker on said user input device in response to said haptic command.

61. (new) The method of claim 41, wherein said user input device is a stylus, and said method further comprises dispensing ink from said stylus to an ink receiving medium when said stylus is used as a writing instrument.